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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/516,302

12/09/2004

Hitoshi Yoshimori

040645

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7590

09/13/2006

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EXAMINER

MAI, ANH T

ART UNIT

PAPER NUMBER

2832

DATE MAILED: 09/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/516,302

Applicant(s)

YOSHIMORI, HITOSHI

Examiner

Anh T. Mai

Art Unit

2832

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

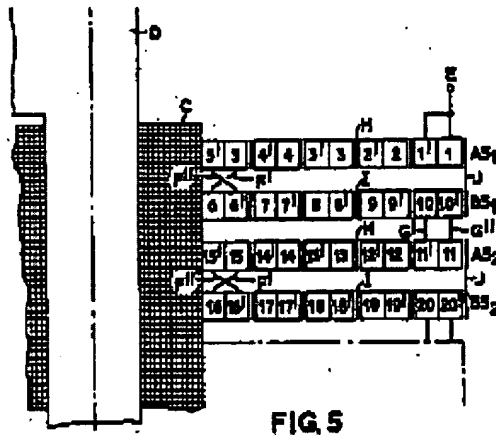
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Bedil [3160838].

Bedil discloses an air-core coil comprising:

- unit coil portions A1, B1, A2, B2 each having at least one conductor wound into a spiral form ;
- the unit coil portions being arranged repeatedly axially of the coil;
- each of the unit coil portions comprising a plurality of unit turn portions 1, 2, 3... which are different from each other in inner peripheral length;
- the unit turn portions of small inner peripheral being at least partly forced inwardly of and adjacent to the unit turn portions of great inner peripheral length [coil turn 2 is smaller than coil turn 1 in peripheral length];
- the plurality of unit turn portions providing each of the unit coil portions are sequentially wound from the outer peripheral side to the inner peripheral side [from 1 to 10];
- one unit turn portion of the inner most periphery being connected to another unit turn on an innermost periphery F of the adjacent unit coil;

- whereby each of the unit coil portions is made at least partly multi-layered.



Referring to FIG. 1 of the drawings, the high-voltage winding of the transformer comprises a number of coils, the first coil consisting of a pair of pancake sections  $A_1$ ,  $B_1$ , the second coil having a pair of sections  $A_2$ ,  $B_2$ , and so on. Each coil is wound as an insulated foil conductor surrounding the low-voltage winding C and its surrounding insulation, the low-voltage winding in turn surrounding a limb of the transformer core D.

Successive turns of the inward-spiraling conductor of section  $A_1$  are indicated at 1, 2, 3 . . . 10, the outermost turn 1 being directly connected to the high-potential terminal B of the transformer. The spaced section  $B_1$  is similar to section  $A_1$ , but the conductor spirals outwards, successive turns being indicated at 11, 12, 13 . . . 20. The innermost turn 10 of section  $A_1$  is connected to the innermost turn 11 of section  $B_1$  by connection F, and the outermost turn 20 of section  $B_1$  is connected to the outermost turn 21 of the adjacent section  $A_2$  by connection G. It will be understood that one or both of connections F and/or G may consist of the uninterrupted current-carrying conductor itself.

With respect to claims 3-4, Bedil discloses the air-core coil fitted around a core D [figure 1, col 1, lines 49-69].

With respect to claims 6-8, the claim is method counterpart of structure claims 1-5, the methods steps therefore inherent for manufacturing a coil comprising windings being wound in the multilayer fashion.

### Response to Arguments

3. Applicant's arguments filed July 11, 2006 have been fully considered but they are not persuasive.

Applicant argues that the invention has *no metal foil conductors interleaved between successive turns*. The examiner disagrees; the claim does not recite that limitation. Further it is, of course, apparent that the elimination of the metal foil eliminates the functions of those elements. It is well settled, however, that omission of an element and its function in a combination is an obvious expedient if the remaining elements perform the same functions as before. In re Nelson, 40 CCPA 708, 198 F.2d 837, 95 USPQ 82; In re Eliot, 22 CCPA 1088, 76 F.2d 309, 25 USPQ 111.

*Conclusion*

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh T. Mai whose telephone number is 571-272-1995. The examiner can normally be reached on 5/4/9 Schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin Enad can be reached on 571-272-1990. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2832

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Anh T. Mai  
Primary Examiner  
Art Unit 2832



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